



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE
AND TECHNOLOGY**

UNIVERSITY EXAMINATIONS 2012/2013

**1ST YEAR 2ND SEMESTER EXAMINATIONS FOR DIPLOMA IN
COMMUNITY HEALTH AND DEVELOPMENT**

(KISUMU LEARNING CENTRE)

COURSE CODE: HDC 2122

COURSE TITLE: INTRODUCTION TO EPIDEMIOLOGY

DATE: 16/4/2013

TIME: 11.00-12.30PM

DURATION: 1.5 HOURS

INSTRUCTIONS

1. This paper contains TWO sections.
2. Answer ALL questions in section A (Compulsory) and ANY other Two questions in section B.
3. Write all answers in the booklet provided

PART 1 answer all questions (30 marks)

1. Define the following terms (3 marks)
 - a. Epidemic
 - b. Pandemic
 - c. Endemic
2. State the uses of epidemiology (4 marks)
3. List five observational study designs used in epidemiology (5 marks)
4. Define the following terms as used in communicable diseases (4 marks)
 - a. Eradication
 - b. Latent period
 - c. Nosocomial infection
 - d. Incubation period
5. Name types of screening (2 marks)
6. List four levels of disease prevention (4 marks)
7. Give at least two non-communicable diseases of the following organs (4 marks)
 - a. Renal
 - b. Nervous and mental
 - c. Musculoskeletal
 - d. Respiratory
8. In a study looking at the association between improved fitness and decreased mortality was carried out in Kisumu East district. Mortality rate of 67.7 per 100,000 p-yrs was observed in group exposed to improved fitness, while was observed 122.0 per 100,000 p-yrs unexposed group.
 - a) Calculate Risk difference and interpret the result (2 marks)
 - b) Calculate Relative risk and Interpret the result (2 marks)

PART II answer two questions (30 marks)

1. a) State the difference and similarity between incidence and prevalence (10 marks)

b) In January, 3 new cases of trachoma were detected in a village. There were already 10 people in the village who had the disease, but two successfully completed a course of therapy during the month and were considered cured. The population of the village was 2600.

Calculate

- i. the incidence rate is (2 marks)
- ii. the period prevalence rate is (2 marks)
- iii. the point prevalence rate as of 31 January is (1 marks)

2. Describe epidemiological triad with the aid of a diagram as used in epidemiologic studies (15 marks)

3. Describe prevention methods employed on non-communicable diseases (15 marks)

4. Describe the dynamics of disease transmission (15 marks)